

CLAIMS

1. An embolism filter adapted to selectively stop an embolism filter along a length of
5 guidewire, said filter comprising:
 - a) a filter adapted to encircle a guidewire; and
 - b) at least one self-deploying stop attached to said filter and adapted to selectively stop movement of said filter.
- 10 2. The filter according to claim 1, wherein said at least one stop comprises a spring.
3. The filter according to claim 2, wherein said spring expands during deployment.
4. The filter according to claim 2 or claim 3, wherein at least a portion of said stop is
15 removably attached to said filter.
5. The filter according to claim 1, wherein said at least one stop comprises a cushion.
6. The filter according to claim 1 or claim 5, wherein said at least one stop comprises a
20 chamber containing an expandable fluid.
7. The filter according to claim 6, including a fluid release mechanism adapted to cause the release of said expandable fluid.
- 25 8. The filter according to any of the preceding claims, wherein said at least one stop is adapted to be restrained from contacting said guidewire by at least one stop restrainer.
9. The filter according to claim 8, wherein said at least one stop is adapted to self-deploy upon removal of said restrainer.
- 30 10. The filter according to claim 8 or claim 9, wherein said restrainer comprises a material that changes configuration in response to contact with blood tissue.

11. The filter according to claim 1, wherein said at least one stop comprises at least one inflatable member.
12. The filter according to any of the preceding claims, wherein said at least one stop
5 comprises at least two stops.
13. The filter according to claim 12, wherein said at least two stops are radially disposed around said wire.
- 10 14. The filter according to claim 12 or claim 13, wherein said at least two stops are adapted to apply substantially equivalent force to said wire.
15. The filter according to any of the preceding claims, wherein said filter is adapted to collapse within a restrictive cavity.
- 15 16. The filter according to any of the preceding claims, wherein said filter is adapted to self-expand upon exiting a restrictive cavity.
17. The filter according to any of claim 15 or claim 16, wherein said restrictive cavity
20 comprises a delivery sheath.
18. The filter according to claim 17 wherein said delivery sheath is removably coupled to said filter.
- 25 19. The filter according to any of the preceding claims, wherein at least one of said one or more stops are adapted to move a limited distance along said filter.
20. The filter according to any of the preceding claims, comprising a sleeve surrounding said one or more stops.
- 30 21. The filter according to claim 20, wherein said stops do not extend beyond at least one end of said sleeve.

22. The filter according to claim 20, wherein said filter is mounted on said sleeve and does not extend axially beyond said sleeve.

23. A method for stopping motion of a filter along a guidewire comprising:

- 5 a) positioning a guidewire in a blood vessel;
 b) advancing along said guidewire a filter having at least one stop attached thereto; and
 c) allowing said stop to self-deploy and engage said guidewire, thereby securing said filter along said guidewire.

10 24. The method according to claim 23, comprising expanding said filter.

25. The method according to claim 23 or claim 24, comprising collecting particulate matter in the filter.

15 26. The method according to claim 25, comprising collapsing said filter with said collected particulate matter.

27. The method according to claim 26, comprising removing said filter with said collected particulate matter from said blood vessel.

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28. The method according to claim 27, wherein removing said filter comprises not removing said guidewire.

29. A guidewire stop, comprising:

- 25 a) a sleeve that slideably engages a guidewire; and
 b) at least one self-deploying stop attached to said sleeve that selectively stops movement of said sleeve along said guidewire.

30. The guidewire stop according to claim 29, including a vascular filter having front and rear boundaries wherein said sleeve is attached to at least one of said boundaries.

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31. The guidewire stop according to claim 30, wherein said sleeve extends beyond at least one of said boundaries.

32. The guidewire stop according to claim 30, wherein said sleeve is substantially contained between said boundaries.
33. An embolism filter adapted to selectively stop an embolism filter along a length of
5 guidewire, said filter comprising:
a) a filter adapted to encircle a guidewire; and
b) at least one deformable stop attached to said filter and adapted to selectively stop movement of said filter.
- 10 34. A filter according to claim 33, wherein said stop comprises an inflatable stop.
35. A filter according to claim 34, comprising a removal sheath adapted to puncture said stop.